MASTER

Creative tiles
the contemporary museum as part of the creative network of Liège

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Introduction

In the last twenty years, cities have re-discovered the contemporary museum as an effective tool in city making and urban renewal. Buildings like the Guggenheim Museum in Bilbao have become icons, representatives of contemporary architecture. In my thesis I have addressed the topic of the contemporary museum. What is the role of contemporary museums in our society? What are the reasons behind the construction of so many contemporary museums? In today’s society the museum is used with a purely economic purpose, rather than following the need of specific exhibition spaces or the relation toward the city and society. The purpose of the contemporary museum is now increasingly focused on the promotion of an image of city. Its goal is to create a strong and recognizable image that can be unambiguously associated with the name of a city, promoting it to the widest audience possible. In many cases museums are built even before there is a collection to be exhibited and sometimes there is not even the prospect of obtaining one. The choice of a star architect for the design becomes therefore crucial to compensate for the absence of content. These economic strategies, which are most of the times proudly promoted, are leading us to a discouraging truth: The essence of the contemporary museum debate is not occupied by art any more.

I wish to oppose this trend in contemporary museum design while I support the role of the contemporary museum as a catalyst in urban transformation. Focusing on the relation museum - city and museum - exhibition program, I will show the benefits introduced by a context oriented design. Too often the social and urban potential of the museum has been ignored in name of urban marketing.

The thesis is divided into three parts. In the first part I discuss the topic of the contemporary museum. Although this topic has a great relevance in the contemporary architectural debate, very few projects in the last decades are extremely innovative. It appears that there is a discrepancy between the fertile world of museum conceptualization and the sterile world of built projects. What are the reasons behind this architectural failure? What are the projects that succeeded in introducing innovative ways of understanding the contemporary museum? Through which elements do they reach this goal? The answers to these questions will be key for the design of a museum.

The second part of my thesis focuses on the specific case of the city of Liege, in Belgium. After a long period of economic and social decline, the municipality of Liege defined a strategy for its urban requalification. The main goal of the policy chosen by the municipality is to attract as many tourists to the city as possible. The strategy will be implemented through the introduction of macroscopic and iconic architecture into the urban fabric. Most likely the defined strategy will be unable to bring any benefit to the citizens and the city itself. Since the stunning introduction of the Guggenheim Museum in Bilbao an incredible number of cities have tried to copy its success formula. The repeated recourse to this type of iconic architecture has deeply weakened its relevance in urban marketing strategies. The MAMAC is about to become the next victim of this strategy. For the extension of the museum, the municipality explicitly requires a strong gesture with great architectural impact that works as a landmark for the area. In other words, they want an icon that will put the city on the world map and attract attention. In contrast to such an uninspired strategy, I will investigate the benefits of a site specific, context related design strategy, contrary to the generic nature of pompous museum design. The investigation of the Parc de la Boverie, the area where the MAMAC is located, is the point of departure for this strategy. The main goal of the analysis is the definition of characterizing elements present on the area, which can outline a strategy for the extension of the museum. How does the museum project contribute to the enrichment of the urban space? How can the museum design be integrated and contribute to the flows of the city?

The third and final part of the thesis consists in the application of the concepts developed in the previous two parts into the design of an extension of the MAMAC Museum.

The project will demonstrate, on the one hand, the strategy defined in the first part of the thesis for the design of a contemporary museum and on the other hand the relation between the museum and the area to which it belongs.
1.0 The Contemporary Museum

definition of a constructive identity
1.1 Contemporary Museum Design – Current Situation

The topic of the Contemporary Museum is one of the most discussed in the contemporary architectural debate since Architecture has been chosen as the best medium to rethink the museum concept. At the base of new museum designs, whether extensions or new buildings, there is an explicit request by museum directors and municipalities to rearticulate the museum’s institutional position. For example, a museum extension should not be reduced to a mere spatial addition to the existing building but introduce new spatial concepts. Thereon, the goals for the contemporary museum are set.

However, what are the solutions proposed by contemporary architecture? In the last thirty years, all kind of spectacular and extraordinary museum shells were designed. Have these extravagant architectures introduced any element of innovation? Did these glorious sculptures introduce different approaches to the contemporary museum design, its relation to the city, society and art? In the last decades, a large number of museums and museum extensions have been created, but only few projects have actually succeeded in giving an answer to the insistent request for innovation.

[Case Study 1] Perhaps one of the most relevant examples is the Centre Pompidou in Paris, designed by Richard Rogers and Renzo Piano, which opened its doors in 1977. The purpose behind the design of the Centre Pompidou is the creation of a museum conceived as a civic institution, which provides not only an educational but also an entertaining program.

The view of art is consciously combined with activities such as walking, talking, reading, shopping and eating. Through this project, Rogers and Piano are introducing the concept of museum-workshop, in which art is made and not just presented, abandoning the traditional idea of museum as place of contemplation. This new image of museum as a dynamic place of production permitted the involvement of the visitors in the process of art creation, demolishing the barriers between the artists and their public.

Despite the undeniable innovative elements introduced by the Centre Pompidou, the concept of museum-workshop was strongly criticized and quickly abandoned. The formula introduced by Rogers and Piano was consciously radical and did not leave space for the museum’s traditional program. The Centre Pompidou succeeded in being the first “museum which is not a museum” raising, at the same time, the awareness that the traditional museum institution was still needed. Therefore, during the following years, architects focused on re-establishing continuity with the tradition of the nineteenth century museum. The design effort focused, once more, on the concept of museum as a place of contemplation, yet without introducing any new element which could satisfy the needs of a different society and art production. In fact, none of the icons of the recent museum frenzy, such as the Guggenheim Museum in Bilbao or the Tate Modern, are truly innovative projects. There is no doubt that, so far, architecture has failed in its attempt to transform the museum institution and to define its identity in contemporary society.

What are the reasons behind this failure? This is the question at the base of this research. In the following chapters, justifications will be explored and alternative solutions proposed.

1.2 Issue 1 - Economization - The mailing of the Contemporary Museum

1.2.1 Architecture as a provider of consumable images

Contemporary museums have become essential in the strategies of politicians interested in transforming cities in touristic destinations. It is proven that museums have the capacity to improve a city’s image in the regional, national and global scale. The so called “Bilbao Effect” is one of the main reasons of architecture’s failure. A museum design is no longer judged on the base of its museological qualities, but on the impact that it has on the global scale. From the point of view of the municipalities, a good contemporary museum provides the city with a landmark, a dominant relation to the cityscape, it adds value to the surrounding real estates and it stimulates further city planning. The function of the contemporary museum is not educational or of entertainment; its goal is to create a strong and recognizable image that can be unambiguously associated with the name of a city, promoting it to the widest audience possible. An illustration of this trend are the words of the Mayor of Milan, Letizia Moratti:

“To be finally consecrated as a European and world metropolis, Milan needs to build a contemporary museum. For this reason, some of the most important architectural studios in the world were contacted.” ¹

In many cases museums are built even before there is a collection to be exposed. “We'll think of a collection at
Creative Tiles - 1.0 The contemporary Museum - definition of a constructive identity

Centre Pompidou, Cross section - Functional Pattern
the appropriate time.” 1 The choice of a star architect for the design becomes, therefore, crucial to compensate for the absence of content. These economic strategies, which are most of the times proudly promoted, are leading us to a discouraging truth: The essence of the contemporary museum is not related to art any more.

[Case Study 2] To explain this point of view, we already mentioned the Guggenheim Museum in Bilbao, designed by Frank Gehry and opened in 1997. This choice is due to the fact that this project is the most successful one in achieving this set of goals.

The introduction of the new museum in Bilbao has, in fact, helped the municipality out of a disastrous economic situation. The economic strategy was flawless and it brought countless benefits to the city. At the base of the success of the museum there are two main reasons: the first is the support through financing and promotion of the Guggenheim Foundation; the second is the unique impact of the building, made of innovative and unexplored forms over contemporary society.

Then, why present the most famous and successful museum as a negative case study? Would it not be better to refer to a contemporary museum that didn’t benefit of the Guggenheim brand and which has been built only after contemporary society has gotten used to spaceship architecture? It is undeniable that the museum in Bilbao has achieved a great success in the fields of economy and media but, at the same time, it failed completely as a museum. A museum should not be judged based on its economic effectiveness. Moreover, its introduction marks the beginning of the relentless decline suffered by museum architecture in the last decades. The Guggenheim Museum in Bilbao functions as a logo for the city, but doesn’t care about what is exhibited inside. The museum building is the main attraction, while the art exhibited in it plays a secondary role. The official webpage of the museum summarizes clearly the institutional hierarchies. The first heading mentioned in the webpage is “The Building”, the second is “The Exhibitions” and the third and last is “The Permanent Collection”. Even if the permanent collection of modern art is extremely important, it suffers the influence of the building.

Should architecture serve art, or should art serve architecture? With his design Gehry gives a clear answer to this question.

1.2.2 Focus on peripheral functions

A second reason that caused architecture’s failure is related to what is the focus of the architect in the design. In the years after the opening of the Centre Pompidou, the city started to invade the museum institution. The municipalities started demanding additional commercial program. Since the 1980’s, museums are equipped with gift shops, restaurants, concert halls and, sometimes, even supermarkets. The key elements of the museum program (study, conservation and presentation) are not crucial any more for the definition of design strategies. The focus of municipalities and architects is on these peripheral functions, impeding the definition of new museological qualities. Shouldn’t architectural effort be concentrated over the core program of the museum, trying to develop a contemporary structure for the conservation, study and presentation of artifacts? Markus Lüperz criticizes, in 1985, the approach of new built museums. After twenty-five years, his critique remains alarmingly topical:

“The classical museum is built like this: four walls, roof lights, two doors, one for entering, the other for leaving. This simple principle had to give way to art, the art of architecture. All this new museums are often beautiful, noteworthy buildings but, like all art forms, hostile to other art practices. They do not give simple, innocent paintings, simple innocent sculptures any chance.” 2

1.3 Issue 2 - Deinstitutionalization of the museum through flexibility and programmatic freedom

The current ambition of museum directors and municipalities is to rethink the museum program through innovative museum designs. In their opinion, the contemporary museum should be at the absolute service of art and the artists.

During the 1960’s, the art world drastically changed its relationship with the museum institution. At that time, the artistic effort was concentrated in the denial of the museum space through urban-scale interventions and by introducing a close relationship to the context for which the artwork was created. How could a museum possibly exhibit an artwork such as “Spiral Jetty” (1970) by Robert Smithson? It was simply not possible. The only chance for the museum institution was to change its nature, to stop being a museum. The Centre Pompidou made a first step in this direction but the need of a traditional program was still too strong.
The contemporary Museum - definition of a constructive identity

Guggenheim Museum Bilbao, Longitudinal Section - A sparkling shell covers low-quality exhibition spaces
This metamorphosis from the museum institution to the
workshop is topical in the contemporary museum debate.
The art market set complete programmatic flexibility as the
main goal for the contemporary museum. This would offer
the opportunity to exhibit any kind of artistic expression.
What is the price to pay on behalf of absolute flexibility?
What does this request mean for the architectural space?
What kind of space can, at once, accommodate the giant
sculptures of Richard Serra and the paintings of Francis
Bacon? The topic of the architectural scale and its relation
to the exhibited art is of great importance: a painting would
be annihilated in a space that offers the chance to exhibit a
twenty-meter high sculpture.

[Case Study 3] The issue related to the architectural
cube is evident in Yoshio Taniguchi's extension for the
MOMA Museum in New York, built in 1999. This museum
extension is one of the largest and most expensive of the
last decades. Nevertheless, it again doesn't introduce any
relevant reflection over the contemporary museum design.
What leaves everybody speechless is the immensity of the
exhibition spaces. "The contemporary Galleries are large
enough to contain King Kong in the next remake", writes
Hal Foster in his article "It's Modern but is it contemporary?"
3. The vast dimensions of the exhibition spaces are causing
major problems in its relation with the art exhibited and,
therefore, with the people visiting the museum. For example,
the atrium of the MOMA extension is thirty-three meters
high: the height of this space enhances, on the one hand,
the huge "Broken Obelisk" by Barnett Newman but, on the
other, it belittles the panoramic painting "Water Lilies" by
Monet, which shrinks in such a large space.

The scale problem could be solved through the division of
the exhibition spaces in sub modules and, most likely, in sub
modules of the sub modules. A flexible architecture with an
empty floor plan and movable walls is a typology used, for
example, in supermarkets. However, are we sure that food
and art exhibitions need the same spatial configuration?
Is this the best architecture can offer? Under these
circumstances it is. It is clear that the origin of the problem
is not architectural inadequacy but the wrong demand of the
purchaser. The architectural effort shouldn't concentrate on
finding the right answers to the wrong questions.

1.4 Building the Contemporary Museum
Identity. New relations between City,
Museum and Exhibition Program

In the previous chapters, the problems behind the failure
of architecture concerning the introduction of innovative
elements in contemporary museum design, have been
defined. These problems can be divided into two different
categories: the first category regards the relationship
between the museum and the city. On the one hand, museums
are commissioned following purposes of propaganda and
speculation, resulting into buildings which are not related
to the cities they belong to, while, on the other hand, the
city has invaded the museum spaces through commercial,
recreational and refreshment activities, interfering with
the traditional program; the second category regards the
relationship between the museum and the exhibition
program. The lack of specificity of the exhibition program
does not allow architecture to work on the quality of the
exposition spaces. The relations Museum - City and Museum
- Exhibition Program are key elements in the definition of
the identity of the contemporary museum. Let's look at
some parameters which could be at the base of the design
of a contemporary museum.

1.4.1 Relation Museum - City

At the base of a good museum project there must be a
relationship of mutual respect between the museum and
the city. The museum must respect the identity and the
rules imposed by the city, while the city must respect the
sacredness of the museum space. The first step towards
the definition of the contemporary museum's identity is the
relinquishment of the alienating trend in favor of context
aware architecture.

The elements which affect the dialogue between the museum
and the project area can vary. First there is the topography
of the area. Are there aspects in the configuration of the
project area that may favor a specific design choice?
Elements of interest could be, for example, the presence
of water, height differences or a particular view. Also the
urban fabric has an important role in the design process. Are
there characteristic features of the urban fabric that may
suggest a design strategy? Another element of interest is
the social function of the project and surrounding areas.
How does society make use of the project area? What type
of activities does the area involve? A final aspect to take
into consideration is the memory related to the project
area. What are the elements present in the area, which
have defined its character in the story? What events have
changed its configuration over the years? For example, to
keep a building untouched can be important for the overall
definition of the design.
"Spiral Jetty" - Land art is one of those site specific art expressions, which can't be exhibited in a museum.
A close dialogue with the city is crucial for the success of the project, but it is not sufficient. The museum is an element of exception in the urban fabric and this exceptionality has to be expressed through the design. The exceptionality expressed for instance by the Guggenheim Museum in Bilbao is sterile and superficial. It is based on its visual impact and breaks the urban scheme without introducing new qualities. On the contrary, museum institutions should be aware of their public responsibilities and provide society with new opportunities and experiences. This contribution must be guaranteed both to those who decide to visit the museum and those who are visiting the area. How can the museum institution express through its design its extraordinary nature while maintaining a close dialogue with the city?

**Case Study 4** An example is offered by James Stirling through his Neue Staatsgallerie, built in Stuttgart in 1983. Stirling’s project won the competition for the extension of the existing Staatsgallerie. The museum extension occupies a steeply sloping area between two roads and two different parts of the city. On the upper part there are the hillside, while underneath there is the city center. The competition brief required a pedestrian path through the site. All the projects submitted for the competition gave little importance to the required connection, while Stirling made of this apparently secondary element the core of the project. Stirling’s connection path is made of a ramp passing directly through the heart of the museum (the open-air rotunda), revealing to the unaware pedestrians an outstanding space. In this space passengers and museum visitors are meeting each other, both pleased by the view of the exhibited sculptures. The emotion that Stirling gives to the city through the introduction of a functional pedestrian path is stunning.

**Case Study 5** A second example of how to relate a museum to its context and offer new public opportunities is offered by Lina Bo Bardi through her MASP Museum, built in Sao Paulo in 1968. The project site, characterized by the presence of the Trianon Park and an incredible belvedere over the Anhangabau Valley, represented a great challenge for the architect. How to build a museum on that area without interrupting the view point from the park towards the city? Lina Bo Bardi presents a magnificent proposal in which the museum is organized in two parts: the first completely raised up through immense beans while the second is half buried. Through this splitting gesture the architect preserves the view of the city from the park and even improves it through her “museum frame”. The created void is not only functional to the view, but it also becomes an important element for the city’s public life. This third public element, located between the two museum parts, forms an important meeting place. Lina Bo Bardi referred to it as “a place where impulses are released, a place open to the ambiguous.”

The service that the museum institution provides to the city goes beyond the exhibition program. The square introduced by the MASP Museum is the consequence of a profound analysis of the project area. In fact, the square offers the only distressing chance along the busy Avenida Paulista. If the museum is expected to serve the city providing new spatial qualities, the city has to guarantee to the museum an undisturbed conduct of its activities. To ensure the quality of its program, the museum must be able to concentrate completely on it. Restaurants and shops are interfering with the museum’s main activities of research, conservation and presentation. These activities are important today, more than ever. Contemporary artistic production is not evolving slowly as in the 19th century. The introduction of digital art has caused an exponential increase in the artistic production. Therefore, activities such as selection, study and presentation require a much bigger effort. Moreover, within our hectic society made of short-term agendas and instant memories, the traditional program of preservation and memory has become essential.

Today, museum directors and architects are trying to change the image of the museum from a static place of keeping art works, to a dynamic place of production. Setting the museum in motion would satisfy society’s request? It is doubtful that a dynamic museum institution would bring any benefit to a society where everything is moving at uncontrollable speed. Wouter Davidts defines the contemporary museum as a "temporary enclave to study the inflationary field of culture". The contemporary museum institution should not follow the hectic rhythm imposed by contemporary society but provide an exception to it. Entering a museum should be like entering a sacred space, where the time slows down and the visitor has the chance to see and reflect. In such a space there is no place for a shop, there is no place for the city.

Being aware that the commercial aspect is unavoidably linked to the contemporary museum world, whether we like it or not, it becomes necessary to propose an alternative to the concentration of commercial activities within the museum walls. Undoubtedly, the museum should profit of the opportunities offered by the city. The contemporary museum could for example cooperate with restaurants and shops which are present in the vicinities of the project area. Inside the Van Abbe Museum in Eindhoven there is a small bookshop, but most of the commercial activities are
The contemporary Museum - definition of a constructive identity

**Neue Staatsgalerie, Roof Plan** - In red the public path cuts through the museum building

**Axonometric View of the Rotunda**

**MASP Museum, Picture taken from Trianon Park** - In red the void which is a great resource for the city

**MASP Museum, Cross Section** - The splitting gesture of the museum guarantees the continuity of the view toward the city
entrusted to a shop located in the city centre. This relation of mutual aid between the museum and the city could be represented as a network. The goal of this network is to relieve, on the one hand, the museum space from the influence of commercial activities and, on the other hand, promote the experience of the city. Most museums today are offering programs which give visitors the chance to spend a whole day inside the building without experiencing the city at all. “Come for a big show, check out the new building, have lunch, hit the store. That is the ticket.” 3, writes Hal Foster referring to the program offered by the MOMA extension. Cooperation should not be promoted only for commercial activities. The traditional museum program could also benefit from a cooperative effort between institutions.

[Case study 6] The previously mentioned MOMA museum began, in 2000, collaboration with the P.S.1 Contemporary Art Center, built in 1976 in Long Island City, Queens. MOMA invested, during the last ten years, energy and money on contemporary art exhibitions. Nevertheless, its strongly modernist nature has always prevented a close relation toward the most experimental art expressions. Hence, the MOMA institution started to be interested in the activities offered by P.S.1. Despite being a young and small institution, the P.S.1 Contemporary Art Center is highly specialized in the evolution of contemporary art. The activities carried out by P.S.1 became part of the program offered by MOMA, but without giving up its autonomy. The collaboration with P.S.1 has guaranteed MOMA a better quality of the contemporary exhibition program. P.S.1, on the other hand, took the benefit of an unexpected visibility and important funding for its research programs. As argued in this chapter, a context aware design and the participation in a dense cooperative network are important elements for the definition of the contemporary museum identity.

1.4.2 Relation Museum – Exhibition Program
In the previous chapter the role of the contemporary museum institution within society has been established. The contemporary museum should offer the opportunity to escape the frenzy, characteristic of today’s society. This objective is achieved through the exclusion of the city’s activities from the museum building. The exclusion of commercial activities for example, allows an intensification of the program of study, conservation and presentation of artifacts. Once defined what a visitor should not find inside a museum, it is necessary to determine what kind of exhibition program the museum should offer.

In the era of digitization and informatics, the purpose of the museum has changed drastically. The museum institution doesn’t play an important educational role any more. In the previous century the museum institution was fundamental for the diffusion of knowledge, while today it is transmitted through the internet, television and books. The museum has lost its exclusive educational purpose on which the institution was founded. Does this mean that the museum has lost its purpose in contemporary society? Is the transformation of the museum institutions into entertainment parks its only survival chance left? What can the traditional museum institution offer to contemporary society? The museum is distinguished by digital databases, for the unique experience of originals in a predetermined space. In 1936, Walter Benjamin published the book “The Work of Art in the Age of Mechanical Reproduction” 4. In this essay Benjamin expressed his fear that the work of art’s technical reproducibility would deprive the artifact of its aura. Eighty years after Benjamin’s theory it can be assessed that the opposite is true. Reproductions have submerged our environments to such an extent that they might be even favoring the art pieces. In fact, the omnipresence of reproductions underlines the uniqueness of the original. Museum institutions can, therefore, contribute more than ever to contemporary society by fulfilling its classical responsibility of collecting, conserving and exhibiting. It is the view of an original artifact, exposed in the sacredness of the exhibition space, that the museum can offer to contemporary society. The museum has, henceforth, the fundamental task of presenting its art pieces under the best possible conditions. This task is primarily entrusted to the architect. The goal of architecture in designing a contemporary museum is to create spaces which relate in the best way possible with the exhibited art, highlighting its features and qualities. A sculpture for example requires a direct, intense light, which reveals its plasticity. A painting on other hand requires a delicate and diffuse light, which does not cause reflections on the painting surface. Even paintings executed using different techniques need different exhibition conditions. A painting by Alberto Burri requires a different light than a painting by Francis Bacon. Architecture’s need for a specification of the exhibition program appears evident at this point. How can the design of a museum meet the needs of contemporary society, if it is designed before having a clue of what it will contain? How can an architect focus on the quality of
Through the collaboration between differently specialized institutions, MoMA and P.S.1 have improved the quality of their programs. The two institutions are connected by a private shuttle, which invites the visitors of the first to continue their visit in the second institution.
the exhibition space, without knowing what is going to be exposed inside it? The strongly required programmatic flexibility can be achieved only through a generic and sterile design, which ensures a decent quality to whatever is displayed. This insistent demand for flexibility, which oppressed the contemporary museums, has led architecture to failure. Contemporary society requires quality from the museum and this quality can only be achieved through specific programmatic choices.

**[Case Study 7]** A museum that is designed on the base of the existing collection is the MAS Museum (Museum Aan de Stroom) by Xaveer De Geyter. The project took part in a competition without being selected. The competition was organized for the design of a new museum in Antwerp, which would gather in one building the historical collections of three different museums. The design process of De Geyter starts with a deep analysis of the competition brief that brought him to the discovery of a major gap. In fact, the brief didn’t give any indication of how three independent collections had to be combined in a single one. In other words, it didn’t explain how the story of Antwerp had to be told. Instead of thinking immediately (like all the other contenders) in terms of MAS Building, De Geyter thought about how he wanted the story of Antwerp to be told. Only after defining an exhibition strategy, he looked at how to translate it architecturally. The museum is conceived as a warehouse, where the memories of the city – relevant or not – are listed one next to each other. The choice to exhibit everything, even the less important elements makes of the MAS Museum the city’s arsenal. The architectural structure was designed completely according to the museological concept and is formed by a series of parallel shelf units. A presentation structure of this kind doesn’t satisfy the commonly required flexibility. The architectural flexibility of the MAS Museum is conditioned by the museum concept, which has been translated into a concrete presentation structure.

"The MAS project of De Geyter can be read as if it has been designed from the inside out. The initial design decisions are not dictated by the obligatory external program, but are clearly taken in terms of the museum’s classic internal program."

This is why the project succeeded in developing an innovative spatial configuration that underlines the properties of the existing collection. Unfortunately De Geyters’ project didn’t win the competition. The winning project is a sixty meters high tower of ten storeys designed by Neutelings Riedijk architects. It provides the project site with a landmark and the museum visitors with a panoramic view over the city. The upper panoramic floor is also where you can find the restaurant. To locate the commercial activities in the most dramatic parts of the museum is a topic which comes all over again in contemporary museum designs: it seems that the whole historical collection, the history of Antwerp, is used as an elevation structure for the panoramic restaurant. The victory of this design over the one presented by De Geyter represents a new defeat for contemporary architecture and another missed opportunity for the definition of the contemporary museum identity.

### 1.5 Conclusion

Through this last example it is clear how innovative efforts are often unneffective due to the local authority’s lack of understanding. At the base of the definition of a new identity for the contemporary museum, there must be a strong desire and the courage to do what is necessary. As long as the municipalities will reward projects that focus on the enhancement of commercial activities, the path to innovation will be deeply undermined. It is the city that can help the museum institution out of this speculative spiral. The city can offer places where to locate the museum’s commercial activities allowing the museum to concentrate, once more, on its main program. "The evolution of the museum lies in its tradition", said Rafael Moneo explaining his concept of the "Museum Museum". "The museum is like the coffee, which is genuine and not decaffeinated." In return, the contemporary museum has to relate to the city with respect, starting a constructive dialogue which provides society with new opportunities. In fact, a context aware design makes of the points of strength of the city the point of strength of the project. To compete with the existing reality only implies a weakening of both the city and the project. A last fundamental characteristic of the contemporary museum is the specificity of its exhibition program. It is through the exhibition quality that the museum institution will find its role within contemporary society. Our society is ruled by frenzy and seeks the opportunity to escape from it. The museum should, therefore, provide society with a “temporal enclave”, which offers through its program the unique experience of the aura of art. The nature of the contemporary museum is not flexible, generic and impersonal, but, on the contrary, static, specific and personal.
Model picture. The red colour shows the exhibition shelves.
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*Xaveer de Geyter architecten : 12 projecten*, Gent, 

- **image3**: Bekaert, G and Davidts, W and Borret, K, 
*Xaveer de Geyter architecten : 12 projecten*, Gent, 
2.0 The Analysis of Parc de la Boverie (Liège)

selected test area for the Contemporary Museum
2.1 The importance of the industry in Liège

Thanks to its metallurgic industry and coal mines Liege became all through the 19th century the backbone of Belgian economy. For some years after the start of the Industrial Revolution Belgium was the second economy in the world after the United Kingdom. In the first years of the 1960s Liege entered a deep economical crisis. At the base of the crisis was the closedown of the mining industry after twelve centuries of activity and the decline of the metallurgic industry as a result of obsolete factories.

The traces of the economical crisis are visible today in the city and society. The city suffers a general lack of maintenance while the inoccupation rate reached 23% in 2009.

The history of Liège is, therefore, closely linked to its industrial evolution. Through the industry, the city has reached, on the one hand, the maximum level of welfare and on the other, the deepest economical crisis.

The industrial areas are located along the river Meuse. The river is used as main infrastructure for the delivery of raw materials. There are two main industrial areas in Liège. In the north there is the Chertal Island, located between the Meuse and the Albert Canal. In the South there is the Industrial town of Seraing. These two main industrial complexes are connected by private railways (see image 8).
Industrial Areas: 1 - Chertal Island, 2 - Seraing
2.2 "Requalification" projects for Liège

The reprogramming of the areas surrounding the river Meuse became essential after the crisis of the metallurgical industry. In this regard, the GRE Liège (Groupement de Redéploiement Economique du Pays de Liège) was established in 2004. Through a complex process of analysis and planning, subsidized by the Walloon Region and the European Union, GRE has submitted the necessary plans for the economic conversion and redevelopment of several areas along the river Meuse. The policy chosen by the municipality for the requalification of Liège is a policy of touristic attraction. The municipality states that Liège has the needed cultural and historical heritage to become a major European tourist destination. The requalification projects, funded by Walloon Region and the European Union, will therefore focus on the improvement of the image of the city and on the enrichment of the touristic program (see image 9).

2.2.1 The birth of a new touristic axis

There are numerous redevelopment projects on the territory of Liège. I will focus my attention exclusively on those projects, which are related to the topic of the Contemporary Museum.

Indeed the municipality of Liège has planned the extension of its MAMAC Museum (Museum of Modern and Contemporary Art), for which a competition will be held. However, the MAMAC museum and its extension will be only one stage of the touristic route, which starts from the train station designed by Santiago Calatrava. Arriving at the train station with the recently introduced TGV, the tourist passes through the Guillemins district for which a master plan has been developed by the Belgian architectural studio Deither Architectures. Crossing the river Meuse using the new bridge built along the axis, the tourist arrives at Parc de la Boverie, where the MAMAC Museum is located and where its extension has been planned. Concluding the visit to the
The Analysis of Parc de la Boverie (Liège), selected test area for the contemporary museum

The tourist continues his walk along the axis until he reaches its final stage, the giant shopping mall Mediacité, designed by Ron Arad Architects. The day ends going back to the station following the path marked by the new touristic axis (see image 10).

The introduction of these new elements along a monumental axis shows, on the one hand, the desire of the municipality to promote "one day" tourism and on the other, it shows a strong denial of the city itself. An entire portion of the city has been demolished in favor of the new interventions, which are obstructing the experience of the city and its culture. The direct axis from the station, through the museum, to the commercial centre takes from the visitor the opportunity to "get lost in the urban fabric", to discover unexpected elements of interest, or be distracted from the touristic duties: visit, consume and buy.

Analyzing case by case the elements placed along the touristic axis we will see how even the architectural choices are denying the culture and traditions of Liège, projecting the visitor of the city in an alienating atmosphere.
2.2.2 The Liège-Guillemins train station

The new station designed by the architect Santiago Calatrava was officially opened in September 2009. The station has 9 tracks and 5 platforms (three of 450m and two of 350m). All the tracks around the station have been modernized to allow high speed arrival and departure. The new station is made of steel, glass and white concrete. It includes a monumental arch, 200 metres long and 35 metres high. The building cost 312 million euros.

The aerial views (see images 11 + 14) evidence how the new station of Liege does not relate in any way to the surrounding environment. It represents a foreign body landed like a spaceship in the middle of an old industrial city. Considering the state of degradation of Liege it is natural to wonder, whether the money invested in the railway station could not have been used to satisfy the evident needs of the city.
2.2.3 The Esplanade des Guillemins

The goal of the reprogramming of Guillemins district is to create a public space that enters into a dialogue with the majesty of the new station. The design for the area introduces a large square in front of the new station and a cycle pedestrian esplanade that reaches the banks of the river Meuse. The new district will be multifunctional, with a strong economic and financial identity, guaranteed by the presence of offices, hotels and shops.

Once again we notice that the scale and monumentality of the public spaces proposed for the area has no relation to the urban context. That is because the project was designed to suit the new train station, whose size would fit to a capital like Paris, not to the third biggest Belgian city. Moreover, to allow the construction of the new axis entire blocks have been destroyed, as shown in the maps below (see images 16 + 17).

Defined program:
- Housing: 400 to 500 new units
- Offices (along the esplanade): 55 000 m² of offices (public and private services)
- Shops (area close to the station): 2 500 m²
- Hotel Facilities (outside the station): 10 000 m²
- Other functions: Nursery, gym, cultural space....
The Analysis of Parc de la Boverie (Liège), selected test area for the contemporary museum

Image 17 - Esplanade des Guillemins. Master Plan
2.2.4 The Pedestrian Bridge

Instead of a direct route, the existing route allows the tourist to walk through the city, reaching the margins of the historical city centre. After having crossed Parc de la Boverie, the visitor would finally arrive at the MAMAC Museum (see image 18).

Instead of introducing a new bridge, the requalification of the river side would be much more challenging. Indeed the river banks are today characterized by high speed infrastructures, which interfere with a peaceful interaction with the river (see image 19).

What are the reasons that lead to the design of a new bridge?

Perhaps, it was to ensure that the tourists would not have a chance to get interested in the historical centre, wasting precious minutes from their visit of the city's malls.
2.2.5 The extension of MAMAC Museum
As discussed in the previous chapter (The contemporary museum - definition of a constructive identity), the economical and territorial redevelopment projects often involve the topic of the contemporary museum. For example, in Bilbao, the Guggenheim Museum, designed by Frank Gehry, was built to improve the difficult economic situation of the city, through the increase of the touristic affluence. More and more the museum is used as a tool that serves economy and not any more the artistic movement. The same is happening in Liège, where the extension of the Museum of Modern and Contemporary Art MAMAC will become a fundamental element in the strategy of tourist attraction and media promotion along the axis Train Station - Mediacité. The competition for the extension of the museum represents an important opportunity to put into practice the concepts developed in the previous chapter, regarding the design of a museum for the contemporary society. As pointed out previously, the contemporary museum is based on an intimate relationship with the project area. It is the area itself, which suggests an approach for the development of the project. Due to the relevance the extension project has for my research, I will dedicate the next chapter to its analysis.

2.2.6 The Mediacité commercial center
The Mediacité mall, designed by Ron Arad Architects, covers an area of 10 000m² in the district of Longdoz. The 350m long building goes through the fabric of the old market centre, connecting it to the new Belgian national television centre at the other. The program provides spaces for commercial activities (shops, restaurants etc.), entertainment (cinema, ice rink etc.) and multimedia (production studios, workshops etc.). Once again we are in the presence of an alienating architecture, which does not relate in any way with the city and its culture (see images 20 + 21).
2.2.7 Conclusions

The image below represents the strategy developed by the municipality of Liège for the "requalification" of the city. The entire economical and planning effort is directed towards the touristic market. Through the introduction of buildings made of stunning shapes and flaring colors, the municipality wants to attract the attention of the widest audience possible. It seems contradictory that the redevelopment effort of the city focuses only on the needs of the visitors and not on the needs of the citizens. What kind of benefit does the citizen get from the project previously described? How does the new touristic axis deal with the problems of Liège (degradation, lack of maintenance, unemployment ...)?
2.3 The analysis of Parc de la Boverie

Parc de la Boverie is located at the southern part of the island of Outremeuse. The area, known since the 14th century for its green character, got its shape in the middle of the nineteenth century through the adjustments of the river Meuse and the digging of its derivation (see image 22). In 1863 the city of Liège conceded the northern part of the park to the Royal Horticultural Society, which introduced a garden of acclimatization and zoo (see image 23). The new gardens could be accessed by the Pont du Commerce (today Pont Albert). The southern part of the island hosted a velodrome (see image 24), in the area where today resides the French rose garden. The park was redesigned in 1874 by Hubert-Guillaume Blonden (public engineer director of the works for the City of Liège between 1857 and 1881), who replaced the old buildings (booths, restaurants, animal cages) with lawns planted with trees. In 1905, Parc de la Boverie hosted the Universal Exposition, held in commemoration of the 75th anniversary of the Belgium independence. The Palais des Beaux-Arts is the only building that was kept after the end of the exposition. Today it houses the Museum of Modern and Contemporary Art (MAMAC) and the Cabinet des Estampes et des Dessins de la Ville de Liège (Print and Drawing Room of the City of Liège).

Beside the Museum, Parc de la Boverie hosts today a Sport and Rowing Club, the Congress Centre of the City of Liege and a hotel.
2.3.1 Locating Parc de la Boverie in Liège
2.3.2 Functional distribution
2.3.3 Relation of Parc de la Boverie with the city

The urban sections clarify the relationship between Parc de la Boverie (and with it the MAMAC Museum) and the city. The western edge of the park is indeed distant from the edge of the city and the museum is hidden behind the trees. Instead, the eastern edge of the park establishes a direct relationship with the city, due to the reduced distance from the city margin. From this side the MAMAC Museum is clearly visible.
2.3.4 Topography of Parc de la Boverie

Parc de la Boverie is characterized by a particular topography. The level of the park varies about 4m from the level of the river. This change of height is reached through a slight inclination that starts from the west side of the park, reaching its summit almost at the limit with the east side. The evolution of this slope can be schematized as a triangle (see image 27). This particular topographical character can be very important for the definition of a design strategy. In fact the four meters separating the level of the water from the level of the park offer the chance to build on the edge of the river. This prospect becomes even more interesting, considering that the eastern front is now used as a transition, loading - unloading and parking area. The steep slope characterizing the eastern side of the park (see images 28-30) doesn't offer any quality and, above all, it does not allow any relationship with the derivation of the River. An interesting topic introduced by the characteristic topography of the area is the design of this side of the park, in order to create a relation with the water.
The Analysis of Parc de la Boverie (Liège), selected test area for the contemporary museum.
2.3.5 The spatial structure of Parc de la Boverie

During my first visit to the project area I had the impression that it was composed of a series of bands. Each band has a different function and distinct characteristics. The bands follow a northwest / southeast orientation, through the longest section of the park. The first band consists of the derivation of the river Meuse. The road band, a band consisting of the museum and French Garden and the park band are the other ones (see images 31+32). The most interesting band is the one that from the road leads to the derivation. The dialogue with the water (now nonexistent) can be an important topic to investigate for the development of the project.
2.3.6 Activities of Parc de la Boverie

The relationship between the museum and the park is of fundamental importance for the development of a design strategy. Today the park represents an escape from the chaotic city life. In fact the park hosts recreational, sport and relaxing activities (see image 33). But what is the relationship between the activities of the park and the museum? What are the reasons that permit the coexistence of both the informal and the institutional activities? The reasons for this coexistence are to be found in the role the museum plays in the park. The influence of the museum is in fact very limited. Through brief interviews done during the visits to Liège, I have determined that out of thirty interviewed persons only eight were aware that the deteriorated building located at the center of the park houses a museum. Therefore, the main reason for this unique coexistence depends on the absence of influence by the museum and not by a planned strategy. At this point, it is inevitable to reason on how an extension and requalification project of the museum could affect the activities of the park. It is legitimate to imagine that the renewed institutional influence of the museum would undermine the current use of the park. In my opinion, it is essential that the activities present today in Parc de la Boverie are kept unchanged. The citizens require an exception to their hectic city life. How can the extension of MAMAC ensure the preservation of the activities of the park? What are the elements that may limit the reverential influence of the museum, without failing to declare its presence? These are questions to be faced during the design process.

Image 33: List of activities in Parc de la Boverie
2.3.6 Introduction to the buildings on the Island

- Holiday Inn Hotel
- Convention Centre
- Rowing and Sports Club
- MAMAC Museum
- French Rose Garden
- Pont Albert
- Pont de Huy
- Pont des Vennes
- River Meuse
The Analysis of Parc de la Boverie (Liège), selected test area for the contemporary museum

photo 7 - View over Parc de la Boverie, west side
2.4 The analysis of MAMAC

2.4.1 Introduction
The city of Liège is known today for its important collection of modern art. In 1805, Napoleon Bonaparte donated to Liège his portrait painted by Jean-Dominique Ingres in order to remind the citizens of his first visit. In 1816, the donation of fifty paintings belonging to Mr. Louis-Pierre Saint-Martin, a French judge exercising in the Court of Justice of Liège, signed the official starting point of the collection. The collection was gradually enriched by acquisitions, inheritances and especially by donations from influent citizens. In 1887, Leopold Donnay donated thirty-three paintings, including nine paintings by Eugène Boudin. In 1900, Eugène Dumont donated thirty-nine paintings, including a Monet, a Raffaelli and a Corot. Due to this numerous donations of French paintings, French art has acquired great importance within the collection. Nowadays the collection counts more than 700 paintings.

The rapid growth of the art collection opened a debate, in the middle of the nineteenth century, on where the works had to be exhibited.

After years of debates, the solution was presented through the Universal Exposition, held in commemoration of the 75th anniversary of the Belgian independence, that took place in Liège in 1905. The site of the exhibition covered a total area of 660000m², including 33000m² in Vennes, 10000m² at Parc de la Boverie, 4000m² in Fragnée and 19000m² in Cointe (see image 34).

In occasion of the expo, the municipality of Liege decided to build the Palais des Beaux-Arts (the future MAMAC), which would house the painting collection.

2.4.2 The Palais des Beaux-Arts
Of all the pavilions built for the event, the Palais des Beaux-Arts was the only one maintained in memory of the event.
The Palace was designed by the local architect Charles Soubre in neoclassical style inspired by French architecture and particularly by the work of Charles Girault. The palace reflects the aesthetic taste of the bourgeoisie of the time, which was reassured by classical architecture (see image 35 + 36). The only innovative element of the building is the free layout of the interior space. The rhythm of the unique and vast exhibition space is given by pilasters. The exhibition area can be subdivided through the use of movable walls. The exhibition floor covers 2500 m². For the opening of the expo in 1905 a surplus of artifacts to be exhibited led to the construction of temporary facilities (see image 37).
Creative Tiles - 2.0 The Analysis of Parc de la Boverie (Liège), selected test area for the contemporary museum
Image 40 - Plain des Aguesses 1906 (after the Universal Exposition)
2.4.3 From Palais des Beaux-Arts to MAMAC

To commemorate the success of the Universal Exposition and praise the important work accomplished by its organizers and the various public authorities, two slabs of white marble, engraved and gilded, were installed at the entrance of the rotunda in 1907 (see image 41). In the following years, the Palais des Beaux-Arts exhibited the art collection of Liège, accommodated several art-triennials and several other exhibitions including one dedicated to Cobra in October 1951. This was the last manifestation of this collective group. At the beginning of the eighties of the twentieth century, the state of the old palace required significant work and changes that were produced between 1988 and 1993. The Museum of Modern and Contemporary Art was inaugurated in April 1993. Since then, it provides a program of temporary exhibitions focusing on contemporary art and it accommodates the paintings of the collection. Due to the large side windows, the exhibition space of the MAMAC does not have the necessary characteristics for a good painting exhibition. The light enters the space laterally causing annoying reflections on the glossy surfaces of the paintings. This fundamental problem, related to the exhibition quality guaranteed by the museum, should have been the reason behind the requested extension of MAMAC, which was presented by the municipality in 2007. Instead, the reason why the City of Liège promoted a competition for the extension of the museum is exclusively economical. In fact the municipality wants a strong intervention on the image of the museum, in order to attract as much tourists as possible, without even mentioning the quality of the exhibition space. In other words, the municipality asks for a face lift for its museum.

2.4.4 The Permanent Collection

The existing collection of paintings is important for two different reasons. Firstly the collection plays an important role in the artistic field. In fact, the collection features works of highest value such as "La Maison bleue" (1920) by Marc Chagall or "La Famille Soler" (1903) by Pablo Picasso. The collection, however, plays a second and crucial role. Through the paintings it is possible to read different parts of the history of Liège. As described previously (Chapter 2.4.1 Introduction) the collection was shaped over decades, through donations of eminent characters, bequests and important commercial operations. The artistic and historical value of the permanent collection should be considered in the extension project of MAMAC. The existence of such an important collection should, therefore, direct the design choices.

Here are some of the leading artists and major works present in the permanent collection:

- Eugène Boudin "Trouville, scène de plage" (1884), 80x54cm (image 42)
- Marc Chagall "La Maison bleue" (1920), 67x97cm (image 43)
- Émile Claus "Le vieux jardinier" (1885), 216x240cm (image 44)
- Jean-Baptiste Corot
- Franz Courtens "La Drève ensoleillée" (1892), 215x178cm
- Paul Delvaux
- James Ensor "La Mort et les Masques" (1897), 79x100cm (image 45)
- Maurice Estève
- Henri Evenepoel "Promenade du dimanche au Bois de Boulogne" (1899), 190x300cm
- Othon Friesz "Le Port d’Anvers" (1906), 54x65cm
- Paul Gauguin "Le Sorcier d’Hiva Oa ou Le Marquisien à la cape rouge" (1902), 92x73cm (image 46)
- Armand Guillaumin "L’Écluse du Moulin Bouchardon, à Crozant" (1892), 65x80cm
- Fernand Khnopff "Portrait de Mme Edmond Khnopff" (1885), 36x28cm
- Oskar Kokoschka "Monte Carlo" (1925), 73x100cm, (image 47)
- Eugène Laermans "Les intrus" (1903) (image 48)
- Marie Laurencin "Portait de jeune fille" (1924), 65x54cm (image 49)
- Sol LeWitt
- Alberto Magnelli
- Franz Marc "Chevaux au pâturage" (1910), 61x82cm (image 50)
- Albert Marquet "Le Quai du Havre" (1934), 65x81cm (image 51)
- Claude Monet "Le bassin du commerce, Le Havre" (1874), 37x45cm (image 52)
- Constant Permeke "Les Époux" (1932), 166x181cm
- Pablo Picasso "La famille Soler" (1903), 150x200cm (image 53)
- Camille Pissaro "Le Louvre, printemps" (1901), 54x65cm
- Serge Poliakoff
- Paul Séruier "Bords de mer" (1914), 65x92 (image 54)
- Paul Signac "Le Château de Comblat" (1887), 60x92cm
- Antoni Tàpies
- Maurice Utrillo "Le moulin de la Galette" (1922) 106x81cm (image 55)
- Kees Van Dongen "La Violoniste" (1922), 81x60
- Théo Van Rysselberghhe "Les Sœurs du peintre Schlobach" (1884), 207x147cm (image 56)
- Suzanne Valadon "Nature morte aux fleurs et fruits" (1930), 73x60cm (image 57)
- Victor Vasarely
- Claude Viallat
- Maurice de Vlaminck
- Rik Wouters "L’Homme au chapeau de paille" (1913), 121x110cm (image 58)
The Analysis of Parc de la Boverie (Liège), selected test area for the contemporary museum
2.4.5 The competition for the extension of MAMAC

“A cultural project of big scale able to attract many tourists to Liège and thus help restore its image.” This is the goal set by the municipality of Liège for the extension of MAMAC.

In March 2007, GRE-Liège (Groupement de Redéploiement Economique du Pays de Liège) launched a study to investigate the feasibility of the project. The goal that emerges is to create an international center of art and culture (CIAC) that attracts 600,000 visitors a year, located on the new axis of Liège (Calatrava Station - Médiacité).

The extension will be financed by private (sponsors and patrons) and by public funds. In June 2008, the CIAC project was selected to receive European funds (FEDER), for a total of 23.5 million €.

The opening of the new MAMAC Museum is planned for the end of 2014.

I hereby list some requests and statements taken from the official competition brief:

- “creation of an art centre, capable by its reputation to attract new audiences and strengthen the cultural institutions that would benefit from Liège contribution to an international audience”
- “design a new urban axis from the station and a new urban centre whose core will be Parc de la Boverie”
- “the reach of these initiatives will reach extends far beyond the borders of the country”
- “cultural metropolis”
- “the museum extension will change the MAMAC with the help of a strong gesture”
- “new desired monumentality in Liège”

From the competition brief it appears clear that the design of the extension should just focus on guaranteeing the biggest incomes and the widest promotion. The municipality of Liège is exclusively interested in the number of tourists that will walk along the new axis and doesn’t even consider the city (with its structure), the citizens (with their needs and tradition) and the existing collection (with its very specific exhibition requirements). These aspects, which are not even mentioned in the competition brief, must be at the base of the extension.
2.4.6 The analysis of MAMAC

- Museum Entrance
- Exhibition Floor
- East Facade designed without windows to avoid the view of the industrial area located in front of it
- French Rose Garden: surprising view of the garden from MAMAC Exhibition Floor
The museum entrance is located on the north facade, a facade with secondary importance. This peculiar location of the entrance introduces a north-south axis, while the building typology would suggest an east-west axis. This element of surprise could be important for the design of the museum extension.

Rose garden located in front of the south facade, strengthening the north-south axis introduced by the museum entrance located on the north facade. The rose garden reveals itself to the museum visitor unexpectedly. This relation between the museum and the garden could be of great importance for the museum extension.

The vast unique exhibition space is subdivided by movable walls. On the exhibition walls are exhibited contemporary pictures and paintings from the permanent collection. The reflections in the glass of the picture frames shows the inadequacy of the lightning system.

These windows provide the exhibition space with a wonderful view over the park and the Meuse. Unfortunately the light entering the building through these windows causes disturbance in the view of the permanent collection (light reflects on the paintings).
The Analysis of Parc de la Boverie (Liège), selected test area for the contemporary museum
The facade was conceived without windows in order to avoid an undesired view over the industrial areas located on the other side of the Meuse derivation. This strong position taken towards the industrial areas at the beginning of the twentieth century can be an important element to consider for the MAMAC extension.
The Analysis of Parc de la Boverie (Liège), selected test area for the contemporary museum

Floor Plan 0.00m, scale 1:500

- storage room
- office
- wood workshop
- paintings storage
- refectory
- toilets
- children workshop
- exposition room
- wiring room
- concierge
- room
- room

Photo 1 - storage room
Photo 2 - painting storage
Photo 3 - wood workshop
Photo 4 - storage entrance
Photo 5 - toilet
Photo 6 - children workshop
The Analysis of Parc de la Boverie (Liège), selected test area for the contemporary museum

Floor Plan +2.50m, scale 1:500

West Facade, scale 1:500

photo 1 - storage room
photo 2 - exhibition floor
photo 3 - cafeteria
The Analysis of Parc de la Boverie (Liège), selected test area for the contemporary museum
East Facade, scale 1:500
The Analysis of Parc de la Boverie (Liège), selected test area for the contemporary museum.
2.5 Conclusions

Several features, that could be important for the development of a design strategy, have been identified through the analysis of the project area:

2.5.1 Elements of interest of Parc de la Boverie

1 - Relation Park-City

The east side of the park is in direct contact with the city.

The Park should not be accessed directly. A walk through the city and across the park is preferable.

2 - Spatial Structure + Topography

An intervention on the street band offers a chance for interaction between the museum and the river derivation.

The steep slope offers an opportunity to design along the east side of the park, without creating a barrier between the park and the river derivation.

3 - Park activities

Parc de la Boverie is one of the few public spaces in Liege that provides an alternative to the hectic city life. To preserve the activities in the park means to preserve one of the main distressing areas of the city.
2.5.2 Elements of interest of MAMAC

1 - The permanent collection

Today the museum doesn't have an ideal exhibition space for the permanent collection. The large windows present in the museum bring an intense side light inside the exhibition space, causing annoying reflections on the surface of the paintings. Given the importance of the collection, it is fundamental to design an exhibition space that meets its specific needs.

2 - The blind facade

1905. The facade was designed blind as a sign of rejection of the industrial area.

Today. Over the years, the industries have been closed and demolished or converted. The blind facade of MAMAC recalls the denial of the early twentieth century.
3 - The relation of MAMAC with the French Rose Garden

The anomalous entrance on the north facade and the presence of the French Garden in front of the south facade of the museum, mark an axis that runs parallel to the derivation of the river. From the exhibition space of the museum the French Garden appears suddenly at the sight of the visitors (see view 1). We can therefore say that the garden itself becomes part of the exhibition. To involve further the garden in the dynamics of the museum, through the design of its extension, would create a continuity with the history of the museum.
3.0 The Design for the Extension of MAMAC
3.1 Summary of relevant concepts and elements for the extension project of MAMAC

The third and last part of my thesis consists in the application of the concepts developed in Part I and Part II into the design of an extension of the MAMAC Museum.

The project will evidence, on the one hand, the strategy defined in the first part of the thesis for the design of a contemporary museum, and on the other hand, the relation between the museum and the area in which it is located.

Next I will list the concepts developed in the first part of my thesis and the relevant elements identified in the second, which will provide a solid base for the design of the extension of MAMAC.

3.1.1 Part I - Concepts at the base of an "innovative" Contemporary Museum
- relinquishment of the alienating trend in favor of context aware architecture (diagram 1)
- back to the traditional program, peripheral functions such as shops should be moved out of the museum walls (diagram 2)
- instauration of a cooperative network between museum and other institutions
- specific, instead of flexible exhibition program (diagram 3)

Diagram 1 - Relation to the project site

[Diagram showing the relationship between museum design, no dialogue between museum, city, and society.]

Diagram 2 - Museum Program

[Diagram showing traditional museum program (study, conservation, presentation) and commercial activities.]

Diagram 3 - Exhibition Spaces

[Diagram showing flexible exhibition space suitable for every kind of artifact and mediocre exhibition quality.]

[Diagram showing rigid exhibition spaces suitable for specific artifacts and best exhibition quality.]
3.1.2 Part II - Relevant elements for the definition of a context aware design strategy
- stronger relation between east side of the park and the city
- access to the park through existing bridge
- relation of the museum to the derivation through interventions on the street band and steep slope
- importance of the preservation of the activities in the park
- importance of the existing collection
- the blind facade as memory of the denial of a part of the city
- intimate relation of the museum with the French Rose Garden

3.2 The Urban Strategy

3.2.1 Access to Park de la Boverie
Previously, the desire of the municipality to introduce a pedestrian bridge along the new axis Train Station - Mediacité has been described.
The introduction of the bridge is pernicious because it prevents the visitor to walk along the west bank of the Meuse and through a portion of the city. I propose to maintain the existing access, focusing on the enhancement of the quality of the route to the park and museum. Today this route is negatively affected by the presence of roads along the edges of the river and its derivation (see image 59).
Burying or moving the street are not credible options. However, an operation that can be done is the extension of the west margin of the city towards the river. A new band added next to the street offers an opportunity to create new public spaces that relate to the river.
3.2.1 Definition of the extension area
To define the ideal area for the museum extension, I will make use of the parameters set in the first two parts of my thesis. As stated previously, the preservation of the park activities is crucial. For this reason the planned intervention should interfere as less as possible with the park life. This statement suggests the use of the edges of the park for the extension of the museum, leaving its centre untouched (see image 59).

The eastern edge of the park is the most appropriate for the museum extension (see image 60). It represents the ideal site for the extension for the following reasons:

- The existing museum and the French rose garden are located along the eastern edge.
- The proximity of the museum to the eastern edge of the park makes it possible to relate the museum with the derivation of the Meuse.
- The eastern edge of the park has a strong urban character because of the presence of the street, the parking spaces and the "back" of the museum. In contrast, the western edge has a strong natural character that relates strongly to the park (see image 61).
- To extend the existing museum on the side of the blind facade shows the change of attitude towards the eastern part of the city that was denied in the past, because of its industrial character (see images 62 + 63).
Conceptual Models

Densification Model

The model shows the desired density levels of the area. Currently the east side of the park doesn’t host any activity. A densification of functions in that area could help creating new relationships between the park, the river and the city.

Urbanisation Model

The model shows the band structure of the park. It indicates the street band (located along the east edge of the park) as the ideal area to be subjected to a process of urbanization.
3.2.2 Reshaping the eastern edge of Parc de la Boverie

The east side of the park does not have any particular qualities. It is primarily functional to the transit of vehicles engaged in loading and unloading the necessary material for the museum. It is the classic “back side” that hides all the elements which are necessary (for example the parking spaces), but not pleasing to the eye. The blind facade of the museum further emphasizes this aspect (see images 64 - 67).

At this point it is important to underline that the east side of the park is definitely not a “back”. It directly overlooks the city creating the unique chance of a dialogue between the MAMAC Museum and the eastern part of Liege. It is therefore essential to redevelop this area of the park.

The redevelopment starts with the definition of the character of the area, for then being able to redefine it with more coherence and clarity. The east side of the park is in fact characterized by a strong urban character because of the street and parking spaces. Incoherent from this point of view is the presence of the steep green slope, which does not introduce any quality to the area and is principally used to mask the presence of a technical area. The design effort is then concentrated in the transformation of the apparent “soft edge” in a declared “hard edge” (see images 68 - 70).
3.3 The Design Strategy

3.3.1 The exhibition space for the permanent collection.

In the design for the MAS (Museum Aan de Stroom) by Xaveer De Geyter described in Part I, the existing collection plays a key role. De Geyter first defines a strategy for the exhibition of the objects and only then defines the shape of the architecture that reflects that strategy.

Also the MAMAC museum has already an important collection, composed of about 700 paintings. The exhibition of paintings on the wall requires precise characteristics of the exhibition space of which the most important is the light. The best possible light for the exhibition of paintings is zenithal, natural and diffused. The natural light provides the space with a dynamic quality, given by the change of the weather conditions. This change brings the space to life, but it has to be regulated through the use of an artificial lighting system (see images 71+72).

The exhibition space of MAMAC provides the necessary zenithal light, but is at the same time characterized by large lateral windows. The light that pass through these windows reflects on the surface of the paintings, disturbing its vision and complicating its maintenance (see image 73).
Other important elements for the exhibition of paintings are the walls. MAMAC has only the perimeter walls and, therefore, makes use of movable ones, which trivialize the displayed paintings. It is not possible to intervene on the existing exhibition space, in order to ensure the ideal characteristics for the exhibition of the permanent collection. The lateral windows, in fact, create an important relationship towards the park and the river. For this reason they can’t be blinded, while the quality of the wide exposition area would be destroyed through the introduction of fixed walls (see images 74+75).

Henceforth, a new exhibition space is needed for the best exhibition of the permanent collection.

3.3.2 Definition of the extension typology
As defined previously, the extension will take place along the eastern edge of the park. The question now is whether the extension will be a continuation of the existing building or if it will be separate.
To build along the east facade of the museum, means to demolish or cover the blind wall. Although an attempt to build along this front seems a reasonable approach (the formal rigidity and the symmetry of the facades in the north, south and west make them difficult to tackle), I believe that its maintenance is important for the identity of the area. Consequently, the extension will be separate from the existing palace (see images 76+77).
The exhibition space required for the extension has an area of 6000m$^2$, twice as much as the current exhibition area. The distribution of the required exhibition spaces on several floors would help containing the impact of the building on the park. Unfortunately the need for natural zenithal light does not make this option possible. Consequently the extension will be a building separated from the existing with an exhibition area of approximately 6000m$^2$ spread over a single floor (see images 78+79).
3.3.3 Work on the topography

A building that develops for two hundred meters along the east side of the park represents an insurmountable barrier between the park and the river. One of the goals set for the project area was to create a relationship with the water and, at this point, the exact opposite has been achieved. In regard of this issue I refer to the MASP museum designed by Lina Bo Bardi, mentioned in Part I and the analysis of the topography of the area executed in Part II. To allow a spectacular view of Sao Paulo, Lina Bo Bardi suspends part of her museum and buries the other (see image 80).

As noted during the study of the topography, between the eastern edge of the island and the level of the water there are four meters. This height difference allows burying the museum extension so that it doesn’t compromise the relation between the park and the river. Moreover, this gesture guarantees a new relation between the museum, the public space and the water (see images 81 - 83).
3.3.4 Introduction to the Creative Tiles

The design for the extension of the museum is only one part of a larger project, which aims to introduce in the park different structures that allow the development of the artistic process in all its parts. The artistic process can be summarized in three different points:

- Point one: the conceptualization, during which ideas are created, developed and deepened
- Point two: the execution, during which ideas are materialized
- Point three: the exhibition, during which the artifacts are presented to the public

For each of these points a new building is introduced in Parc de la Boverie. Each of these buildings represents a tile in the mosaic of the artistic process. We have just seen how the exhibition tile (the extension of the museum) responds to precise rules dictated by the project area. Each of the remaining tiles (the conceptualization tile and the execution tile) follows the same rules and is part of the urbanization project of the east side of the park (see image 84).

It remains fundamental to keep the current activities in the park. For this reason it is essential to define a strategy that could avoid an interference with the park activities, despite a strong intervention on it. The base of this strategy has been laid through the underground museum extension, but it has to be further developed.
3.3.5 Perimeter and Introversion

The deepening of the strategy for the maintenance of the activities in the park passes through two key-words: perimeter and introversion.

In order to avoid interfering with the park, it is necessary to mark a precise boundary between the park and the artistic activities. A clear area of influence of the three tiles introduced along the east side of the park, allows its users to continue with their normal activities, without the uncomfortable feeling of invading or desecrate the institutional space. Today art takes more and more over the public space, on the one hand, enriching it, on the other changing deeply its use and character. Who would ever organize a barbecue in the park, if it was studded with sculptures? A clear perimeter permits to determine easily what is, or is not appropriate in the area where you are located (see images 85+86).

The second key-word is introversion. Although it may seem contradictory, certain activities (even if carried out in extremely public places) need a certain intimacy. One thing is to eat, read or relax surrounded by people passing by, which may get interested in what we are doing, but for a short amount of time. Another is to carry out the same activities in front of wide windows, without knowing exactly what is going on beyond them (see images 87+88).

To sum up, the buildings introduced in the park will have three main characteristics:
- They won’t create an obstacle to the vision of the landscape. This goal is achieved through partial or complete burial of the Tiles, taking advantage of the topography of the area.
- They will have a clearly defined perimeter in order to avoid ambiguity of use of the different areas of the park.
- They will be introvert in order to guarantee a certain level of intimacy to the activities in the park.
3.4 The Design

3.4.1 Master Plan
- The three tiles located along the east side of the park are based on the module 5x5m. A grid formed by this module was laid over the defined project area, giving it a precise rhythm (see image 89).
- The existing museum and the French rose garden are taken as reference for the definition of the orientation and alignments of the project, becoming its generative elements (see image 90).
Relation to the project area

Comparing the roof plan with the elevations, an important aspect of the design becomes evident. The roof plan shows the large impact of the project in the park area, while through the elevations it is possible to see how the project almost disappears in the site. The partial burial of the new buildings, on the one hand, declares their presence, on the other, it makes sure that they don't interfere with the activities and the landscape of the park (see image 91).

Raumplan

A topic that is common to the three Tiles regards the room typology. In fact, each element of the project introduces a different type of room, adjusted to the activity it hosts. The rooms of the Conceptualization Tile for example are designed referring
to monastery cells. The Execution Tile is characterized by large and high workshops, used for the construction of big scale objects. Finally, the exhibition tile is divided in rooms of different sizes, to ensure a proper relationship with the exhibited artworks. The floor plan -3.40m shows the sequence of rooms present in the project (see image 92).

**Connection between Tiles**

The three Tiles, like the three different phases of the artistic process, are connected to each other. From the Conceptualization Tile it is possible to reach the Execution Tile through a "secret passage". The path continues through the Execution Tile until the museum entrance is reached, which leads to the old museum or to the Exhibition Tile (see image 93 + 94).
Creative Tiles - 3.0 The Design for the Extension of MAMAC
Creative Tiles - 3.0 The Design for the Extension of MAMAC
3.4.2 The Conceptualization Tile
Floor plan -3.40m
Location

Functional Distribution

- Public Library
  - Individual Study Rooms, Open Access
  - Common Reading Room, Open Access
- Historical Library
  - Study Rooms, Restricted Access
  - Conservation Rooms, Restricted Access
- Museum Archive
  - Study Rooms, Private
  - Conservation Rooms, Private
- Connection Conceptualization Tile-Execution Tile
- Access
- Toilets
- Working Cells
- Gathering Rooms
- Open Air Gathering Space
The library

The Conceptualization Tile represents the first stage of the artistic process. It is dedicated to research and study. In order to support the research, the building houses a library, located along the east side of the building (see image). The library is divided into three different sections (see images 95 + 96).

The first section is publicly accessible and consists of a common reading room and a series of individual spaces, which are overlooking the derivation of the Meuse and the east side of Liège. These spaces can accommodate up to three people, for the discussion of common projects. These individual spaces are designed to guarantee a view over the city and nature, turning the back on the rest of the library. This solution ensures privacy and quietness (see image 97-99).
The second section of the library is accessible only with a special permission. It collects historical books and documents, which require a specific environment for a proper maintenance. Such books and documents are mainly provided by the museum, which has built over the years an important collection of books and art treatises. Today these books are closed in the archives of the museum, without giving researchers the chance to study them. Also this second section of the library is divided in two parts. The first consists of a series of rooms with a controlled environment (humidity, temperature, etc.), while the second consists of small rooms for the consultation of the required documents (the documents cannot leave this section of the library).

The third and final section of the library is private and dedicated to the filing of documents (purchase and sale contracts, annual reports etc.). It has the same subdivision of the previous one, but it has an independent access. The access to this part of the library is allowed only to the staff of the museum (see images 100+101).
The cells and the aggregation spaces

The Conceptualization Tile has been designed as a place for study, reflection and retreat. When I was thinking about what was the ideal space for these activities I tried to identify, out of existing typologies, one that could offer me the best characteristics. Soon my attention was captured by the monastery life. The monastery presents a very interesting relationship between tight living and meditation spaces, open air spaces and spaces for common activities. After a brief research, I have chosen to refer to the design for the Convent of La Tourette by Le Corbusier (1960) (see images 102 +

One of the most relevant aspects of La Tourette regards the dimension and use of the cells. What kind of activities are carried out within them? What is the minimum space required for these activities? How does each cell relate to the rest of the monastery or outside space? I tried to find answers to these questions and use them as a base for my project (see images 104 + 105).
The section of the Conceptualization Tile dedicated to individual work is composed of a dense network of heterogeneous spaces, located along the perimeter of a square. Among the facilities along this perimeter, there are cells, outdoor gathering spaces, indoor gathering spaces, toilets, transition and connection spaces. The sequence of these spaces provides the right balance between individual and common activities (see image 106).

The cells measure 6.4x3m and are mainly designed to provide an ideal space for the development and formulation of projects and ideas. This goal is achieved through a naked and small space, which allows to be customized following individual necessities and at the same time impose a strict selection of what is functional for the work. The cells are not designed to be inhabited, but offer (with the support of the common areas inside the Conceptualization Tile) minimum living conditions. This gives for example the chance to spend the last week before an important deadline inside the cell (see image 107 - Working cell, unit 1).
The cells are controlled by the municipality, who rents them for a determined amount of time lapses on the base of the received motivation letters. The involvement of the municipality and the small size of each cell will guarantee low rents. Sharing moments are particularly important in the artistic environment. Indeed, the best ideas are usually born through confrontations with somebody else's opinion. In this regard, I refer to a personal experience gathered during a visit of the Jan Van Eyck Institute (Maastricht), in September 2010. Together with other students I had the opportunity to question some of the researchers of the Institute about their working habits. Each researcher/artist has its individual atelier for the development of individual projects. Nevertheless it was interesting to discover, that most of the projects had a positive turning point through the confrontation with colleagues. Moreover, through sharing and confrontation several unplanned group projects have been developed and realized. For this reason the cells of the Conceptualization Tile don't provide a kitchen or recreational spaces. These activities are meant to be shared in specifically designed gathering areas, in order to guarantee the necessary moments of socialization (see image 110 + 111).

The last topic I want to face regards the large inner courtyard. It is characterized by a water pool, which is directly connected to the pond of the park. This link to the pond provides the artificial pool with natural vitality. In fact, the pond can vary its water level about thirty centimeters during long rain periods. Because of the minimal depth of the artificial pool, it is strongly influenced by the water level of the pond. If the pond level is low, there will be a minimum presence of water in the Conceptualization Tile. If, however, the pond level is high, the presence of water inside the courtyard will be of great impact (see images 112 + 113).
Model Picture - Floor plan -3.40m
Another important aspect of the courtyard is the absence of a precise programmatic strategy. The wide empty space of the courtyard gives to the people using the cells and library an appropriation opportunity. For example, one day the courtyard can be transformed into an open-air cinema, another one it can be used as a space to play football (see images 114 + 115).

**The relation towards Parc de la Boverie**

The relationship between the Conceptualization Tile and Parc de la Boverie can be summarized in three main points. The first point concerns the relationship between the Tile and the topography of the area. In fact the building exploits the height difference on the ground that characterizes the east side of the park to disappear gradually within it. Along the derivation the building is completely buried into the ground, in order permit the transition of the trucks directed to the museum. Since the ground level lowers towards the west side of the park, while the Conceptualization Tile maintains the same height as the east border of the park, it gradually emerges from the ground. The west facade of the building stays completely above the ground level (see image 116).
The second point concerns the design of the building facades. Indeed, they are not characterized by large windows, as expected from a facade that overlooks the park. Large windows in fact may interfere with the normal activities of the park, which require a certain level of intimacy. The facades have only thin vertical cuts along the thick outer walls, in order to ensure a view of the park from the cells, avoiding the users of the park to feel observed (see images 117 + 118).

The material used for the exterior facades of the building is concrete. To mitigate the impact the concrete facades can have on the environment of the park, it can be covered with climbing plants, which would create a strong link between the park and the intervention (see image 119).
The third point concerns the roof of the Conceptualization Tile. It is a continuous surface that goes from the east side of the park right into it. This surface provides a particular view (belvedere) of the park and the river on one side and, inner courtyard of Conceptualization Tile on the other (see images 120).

The material used for the practicable roof is glass block, which provides the cells and the library with zenithal light. (see images 121 + 122).
The Design for the Extension of MAMAC
3.4.3 The Execution Tile and the Museum Square
Location

Functional Distribution

- Museum Entrance
  - Ticket free exhibition gallery

- Working space
  - Open air, private

- Connecting elements between levels
  - Ramps + stair

- Museum Square
  - No program, appropriation opportunity

- Working space
  - Open air, semi public

- Connection spine
  - Museum square - workshops - waterfront

- Loading and unloading area
  - Connection to conceptualization tile
  - Delivery by boat

- Workshops
  - Informal, private

- Exhibition boxes
  - Rented for individual expositions

- Waterfront
  - Museum program + appropriation opportunity

- Workshops
  - Formal, semi public
The second part of the artistic process takes place in the Execution Tile. What kind of spaces are necessary for the creation of an art project? What kind of qualities should be provided? How can the citizenship be involved in this phase of the artistic process? These are the questions underlying the design of Execution Tile.

The workshops

The working spaces of the Execution of tile have to be heterogeneous. Since the needs in the creation of artifacts are several, the proposed working spaces should present different characteristics. A huge space, in which every kind of activity could fit, is not an option. The spaces of the workshops have to be proportional to the activities they host. How can a painter for example feel comfortable in a room as big as a gym? Moreover a large space could not be used individually. How could the same painter concentrate on his work if surrounded by more or less noisy activities?

The workshops present different characteristics, which vary according to predetermined parameters:
- the size of the working surface
- indoors spaces, covered outdoor spaces, outdoor spaces
- level of publicness

Also in this case the material chosen for the roof of the Execution Tile is the glass block, which allows the lighting of the workshops through zenithal light (see images).
The access to the Execution Tile and the different levels of publicness

There are two different accesses to the Execution Tile. The first access is public and it can be reached passing through the museum square. The second access is private and it can be reached passing through the Conceptualization Tile (see image 125).

This second access is particularly interesting. It provides the users of the workshops an opportunity to reach the working spaces easily and without getting wet if it rains. Let's make the example of an architecture student working on a project within a cell of the Conceptualization Tile. At one point the student decides to test his idea on a large scale study model. He leaves his cell, walks through the courtyard of the Conceptualization Tile until he reaches the east side of the building. Here he crosses the building and reaches a path that runs along the river derivation. Walking along this “secret passage” (it is visible only from the opposite side of the derivation), the student reaches the private entrance to the Execution Tile. Finally inside the desired workshop he can start working on his model (see image 126).
The private access is also used for the delivery of materials. The material is transported by boat and unloaded in front of this access. In this way the materials can be delivered at any time, without interfering with the museum activities (see image 127).

The topic regarding different levels of publicness is very important for the conduct of the activities within the Execution Tile. In fact the level of accessibility of the building is regulated by its users. In two different points of the Tile there are sliding gates that control the accessibility of the different sections of the building. If at least the first of two gates is open, a person coming from the museum square going to the pedestrian path on the water could step into the Tile’s inside courtyard and take a look at the work done within the workshops (see images 128 + 129).
The Execution Tile is entirely buried in the ground along the eastern edge of the park. It emerges one meter over the level of the park, in order to declare its presence (see image 130).

The roof of the Execution Tile is covered by a thin layer of water. From the level of the park the Tile appears as a water pool, which has a void in its centre. The void corresponds to the inner courtyard of the building that becomes therefore an open air space. The location of the void, in the centre of the pool, does not allow the view of the courtyard from the park level. This detail and the sliding gates make sure that the visibility and accessibility of the Tile is entirely regulated by its users (see image 131).
The Museum square
The Museum Square can be reached from the level of the park through a series of ramps. The square is characterized by the presence of the museum entrance, the spine connecting the square with the Execution Tile and the pedestrian path along the derivation border, and finally the presence of the "Exhibition Boxes" located along the perimeter of the square (see image 132).

The Exhibition Boxes
The Museum Square is not the classical exhibition square. As the courtyard of the Conceptualization Tile it has no programmatic planning. It is meant to be a space of appropriation, which can be used by the citizenship. To free the museum square of its exhibition duties a series of Exhibition Boxes are located along the perimeter of the square (see image 132).

The Exhibition boxes can be used for public exhibitions organized by the museum, or be assigned to emerging artists who haven’t reached the level to be displayed inside the museum. The boxes measure 3x4m in plan and are 4m high. They can accommodate artworks, or become artworks themselves (see images 133).
Creative Tiles - 3.0 The Design for the Extension of MAMAC

Different typologies of Exhibition Boxes

Typology 1 - Through a mechanical device the floor of the Exhibition Box raises and lowers to allow the exhibition of artifacts of various dimensions.

Typology 2 - This Exhibition box does not change its height, but is characterized by a translucent ceiling.

Typology 3 - Base module. This Exhibition box doesn't present any particular feature.
The metal doors of the boxes are open during the opening hours of the museum. When the boxes are closed, they don’t show their content to the visitors. Therefore during the closing hours of the museum the square changes deeply its nature. It is surrounded by a continuous surface made of corrugated metal. The openings of the boxes and even the museum entrance literally disappear, camouflaged in the wall’s texture (see images 137 + 138).
In these specific moments the space stops being the Museum Square, becoming a new space without a declared function. When the square hides inside its own perimeter its relation to the museum, it can be used for any purpose, without suffering of awe. For example it could turn into a market square for a day. (see image 139).

The Museum Entrance
The museum entrance is located on the south side of the square, 3.40m under the level of the park (see image 140).
The exhibition space of the old museum was reached passing through the entrance located along the north facade. After the extension project the visitors access the same exhibition space from below the building. They walk along a gallery that passes under the existing museum, until they reach the connection room, which is located exactly under the centre of the old museum. In this room a series of ramps lead the visitors from the level of the new entrance (-3.40m) to the level of the exhibition space of the old MAMAC (+2.50m) (see image 141 + 142).
Instead of going up to the old building, the connection room gives the chance to reach the permanent collection exhibited in the museum extension, through a second gallery (see image 143).

The ticket office of the museum is located in the end of the gallery that starts by the Museum Square and ends by the room under the centre of the old building. This gallery houses temporary exhibition, which can therefore be visited for free. The gallery is divided longitudinally by a wall. The visitor who is not interested in buying a ticket for the museum can go back to the square following the second part of the gallery (see image 143).
The relation towards Parc de la Boverie

The Museum Square is almost entirely buried in the ground and emerges only one meter above the level of the park. From this level it is possible to have a clear view over the square, which is located 3.4m below (see image 144 - 146).
3.4.3 The Exhibition Tile
Functional distribution, Floor plan -3.40m

Functional distribution, Floor plan 0.00m

Floor plan -3.40m

east facade
The Design for the Extension of MAMAC

BOOKSHOP
GROUND FLOOR

MUSEUM STORAGE

ATELIERs DEDICATED TO GROUPWORKS

ATELIERs SINGLE SPACE WITH SUBDIVISIONS

SCULPTURE ROOM

TRANSITION ROOM

CONNECTION TO THE UPPER FLOOR THROUGH RAMPS

FOYER OF THE EXTENSION

DOCKSHOP
FIRST FLOOR

DOCKSHOP-READING ROOM

WINDOWS ON THE EXTENSION FOYER

WATER POOL

TERRACES OVER THE WATER

TRANSITION SPACE

CONNECTION TO WATERFRONT

WALLS ARE USED TO EXHIBIT AND STORE

EXHIBITION ROOMS

WINDOWS ON THE RIVER AND WATERFRONT

PATH TO THE EXTENSION

RELAXING ROOMS

OFFER A BREAK FROM THE EXHIBITION ROUTE

SECONDARY EXHIBITION ROOMS

FOR THE MATERIAL SUPPORTING THE EXHIBITION

MAIN EXHIBITION ROOMS

FOR THE EXHIBITION OF PAINTINGS

TRANSITION ROOM AND TOILETS

CONNECTION OF DIFFERENT LEVELS THROUGH RAMPS

TRANSITION SPACE

CONNECTION PARK-WATERFRONT

MUSEUM TERRACE

VIEW OVER THE RIVER AND WATERFRONT

EXHIBITION ROOM

WINDOWS ON THE LOWER EXHIBITION ROOMS

TRANSITION ROOM

CONNECTION TO THE LOWER FLOOR THROUGH RAMPS

FOYER OF THE EXTENSION

EXHIBITION ROOMS

WINDOWS ON THE RIVER AND WATERFRONT

TRANSITION SPACE

CONNECTION TO THE LOWER FLOOR THROUGH RAMPS

FOYER OF THE EXTENSION

EXHIBITION ROOMS

WINDOWS ON THE RIVER AND WATERFRONT
The structure of the Exhibition Tile

The project for the extension of MAMAC follows the band structure of Parc de la Boverie, analyzed in Part II. The Exhibition Tile consists of three galleries located side by side, which are running parallel to the edge of the river derivation. The three galleries work in strict relation with the water path and the river derivation, involving them in the dynamics of the museum. For this reason we can assess that the water path and the river derivation are exhibition spaces themselves and therefore part of the museum extension. The new MAMAC Museum is therefore composed by six different bands:

1 - The old MAMAC building
2 - The main exhibition gallery
3 - The secondary exhibition gallery
4 - The relaxing gallery
5 - The water path
6 - The river derivation

Each of these bands has a clearly defined identity, but gains quality through the contact with each other. The system of parallel bands is crossed orthogonally by a system of buildings, which are responsible of the connection and collaboration of the different bands. (see image 147-149).

image 147 - The band structure of the museum extension
image 148 - The individuality of the bands. The bands are shifted (in order to represent their individuality), but always touching each other (in order to represent their bond).
image 149 - The introduction of connecting elements
Definition of the museum borders

In the previous chapters I have stated the importance of clearly defined borders for the new buildings introduced in the park. The Exhibition Tile represents an exception to this rule. It is not clear where the influence of the Exhibition Tile ends. The water path running between the Tile and the river derivation can be considered the fourth gallery of the extension project. This happens for two reasons. The first is that the water path can become part of the exhibition route housing open air exhibitions. The second is the strong relation between the museum spaces (in particular the distension gallery). In fact the wall separating the water path from the third exhibition gallery is characterized by windows, which allow a constant relation between this two bands (see image 150-153).

![Image 150 - The galleries of the Exhibition Tile and the Water Path](image150.jpg)

![Image 151 - Relation to the water path 1](image151.jpg)

![Image 152 - Relation to the water path 2](image152.jpg)

![Image 153 - Detail east facade, scale 1:100](image153.jpg)
Also the derivation band can become part of the exhibition route (see images 154 - 156).

The Water path which runs between the relaxing gallery and the river derivation can be compared to the pedestrian passage crossing the Neue Staatsgalerie mentioned in Part I. Both passages are not only functional to the city structure, but they are also providing the citizens, with a public confrontation with the artistic and the museum spaces (see images 157 + 158).

The fact that the Exhibition Tile has not a clearly defined border, doesn’t affect the activities of the park. This is because the Exhibition Tile is located 3.40m below the level of the park and secondly because the blurred borders of the museum extension are expanding towards the river and therefore in the opposite direction from the park.
The requalification of Liège's border with the river derivation

One of the goals of the project is to create a relationship between the eastern part of the city and Parc de la Boverie, after the denial of 1905. To reach this goal it is not sufficient to intervene on the park border. Also the city border should be analyzed and eventually redesigned (see images 62 + 63).

In fact, the border of Liège with the river derivation should offer a linear public space, which provides the citizens with a view of the new landscape introduced by the project (see image 159 (next pages)).

The city border today is characterized by the presence of high speed infrastructures. The presence of these infrastructures doesn’t allow a proper interaction with Parc de la Boverie and the new project.

An extension of the city border is not necessary as it was for the western border of the city. The street section offers in fact the chance to be reorganized, in order to create the necessary space for the new path along the derivation (see images 160 - 163).
This new walking path will be characterized by the presence of terraces (public niches), which give the chance to rest and enjoy the view over the park (see images 164 + 165).
The Exhibition Tile analyzed slice by slice
Throughout the entire design process, from analysis of the project area, to the definition of the construction details, the cross section of the east side of the park has been fundamental. For this reason I decided to analyze the design of the Exhibition Tile, facing the topics introduced section after section.
The light in the "Cross Buildings"

The foyer of the Exhibition Tile (and the other Cross Buildings) has a sawtooth roof. This type of ceiling, with north oriented windows, allows the entrance of the best light possible for an exhibition space (see image 166 + 167).

"The altitude, angle, and color of daylighting varies with compass orientation and time of day. In the northern hemisphere:

Daylight from NORTH-facing windows tends to be shadowless, diffuse, and neutral or slightly grayish most of the day and year.

Daylight from the EAST is strongest in the morning. It tends to be of low altitude, with soft, long shadows, and gray-yellow in color.

Daylight from the SOUTH is dominant from late morning to mid-afternoon. It tends to render colors accurately and cast strong, crisp shadows.

Daylight from the WEST is strongest in the late afternoon and early evening and has a rich gold-orange cast. It can penetrate deeply into buildings and occasionally be overbearing.

Use of an industrial architectural language

As seen before, the new buildings introduced in Parc de la Boverie are closely related to the topography of the area. In fact they are completely or partially buried into the ground, reducing their impact on the park. The only buildings emerging completely from the project site are the Cross Buildings. These buildings follow the 5x5m grid (seen previously) and are aligned to the old MAMAC building and to the passages through the French rose garden. The Cross Buildings are extending towards the eastern part of Liège in the metaphorical attempt to get closer to this part of the city. This attempt to create a relation with the part of the city once denied is also visible in the architectural language used for these buildings. The sawtooth roof and the cladding with corrugated metal create continuity with the old industrial buildings located on the opposite side of the river derivation (see images 167 - 169).
The "peeking moments". When the public spaces meet the museum spaces.
As we have seen before, the Exhibition Tile offers various opportunities of interaction between public and museum space. With constancy the Exhibition Tile opens windows, holes, fissures over the public space, allowing the passengers to peek inside the museum spaces. This strategy aims to involve the citizens in the museum activities, capturing their attention and interest (see image 170).

View from the Cross Buildings over the Water Path
All the Cross Buildings have windows over the Water Path. The specific location and height of these windows makes them an interesting object of analysis. In fact, they are only 1.30m high and start at the height of the floor. This means that the windows provide an angled view over the Water Path, preventing the unattractive front view of the following Cross Building (see image 171 + 172).
Section B - B'

Detail section B - B'
The Module
The Exhibition Tile is based on the module 3x5m. As seen in image 89 (pages 90 + 91), a modular grid 5x5m lies over the entire project area. Each of the three Tiles develops in its main geometries according to this grid, but follows different sub modules to satisfy the complexity of their plans. For example the Conceptualization Tile’s sub module is based on the size of the working cells (3x6m). The Exhibition Tile follows the site grid in its north-south development, but introduces a new rhythm in its west-east development. This exception to the site grid depends by the necessities introduced by the different exhibition spaces (see image 173).
The new galleries

The three galleries composing the inner part of the Exhibition Tile have different characteristics. Although the galleries have been designed to house the permanent collection, they can also be used for the exhibition of other artworks, as long as they require the same exhibition conditions (for example paintings and photographs). In this case, the permanent collection would be temporarily moved to the museum storage, which is located next to the extension’s foyer. Each gallery is divided into rooms by walls, placed transversely to the direction of the gallery. The galleries are organized following a precise hierarchical structure (see image 174).

![Image 174 - The new galleries](image174.jpg)

The Main Gallery is the largest and most representative. The major artworks are exposed within this gallery. If the Exhibition Tile offers two different exhibitions, the most important will be displayed in the main gallery. The rooms of the Secondary Gallery house the supplementary material to the works exhibited in the Main Gallery. For example, if the Main Gallery hosts an exhibition of Magritte, the secondary gallery could expose the history of the artist, his sketches, studies, influences and writings. It introduces the visitor to the material that helps understanding, how the artist came to the creation of his work. This clear hierarchical division is referred to the photography museum FOAM in Amsterdam. Also in this case a secondary exhibition space supports the main exhibition space.

The last gallery is the Relaxing Gallery. It offers the visitors a break from the exhibition route. The rooms in this gallery are characterized by the windows over the Water Path analyzed previously (see image 175).

![Image 175 - The public Water Path runs between the relaxing gallery and the derivation band](image175.jpg)
Routing
Previously we have seen how to access the Exhibition Tile, now we’ll see how to move within it. Leaving the foyer behind the linear path of the Main Gallery leads room after room to the Connection Room. At this point it is possible to access the Secondary Gallery, or reach the upper floor using the ramps present in the room. The upper floor houses exhibition spaces and offers a view over the water and the city. After visiting this floor it is possible to return to the Connection Room and from there accesses the Secondary Gallery. Through the Secondary Gallery, which runs parallel to the Main Gallery, the visitor goes back to the foyer. The Secondary Gallery offers the opportunity to access the Relaxing Gallery. The rooms of the Relaxing Gallery are not part of the exhibition route, it is therefore not necessary to visit all of them (see image 176).
The Design for the Extension of MAMAC

image 177 - Expoded axonometry
Height difference
The plan of the exhibition rooms belonging to the same gallery doesn’t change. In fact the variations to the rooms occur vertically. The two exhibition galleries have rooms 3m high and 4.5m high, while the rooms of the Relaxing Gallery maintain a constant height of 3.5m.
In Part I we have seen the project for the extension of the MOMA, where the exhibited works were suffering from the wrong proportion of the exhibition space. The two different heights of the exhibition spaces have been introduced to prevent this problematic (see images 178 + 179).

The heights of the rooms are set on the one hand following the conditions imposed by the project area, on the other through a study of the dimensions of the paintings in the permanent collection. For example “Le vieux jardinier” (216x240cm) by Émile Claus would not fit a 3m high room. On the other hand “Le bassin du commerce, Le Havre” (37x45cm) by Claude Monet would suffer the size of a 4.5m high wall.
The longitudinal section below shows the height variations along the Main Gallery (see image 180).
Creative Tiles - 3.0 The Design for the Extension of MAMAC
The lighting system in the new galleries

The exhibition galleries are lightened by natural, zenithal light. They are characterized by a vaulted ceiling, inspired by the ceiling introduced by Louis Kahn in his Kimbell Art Museum and by Norman Foster in his Sackler Gallery (see images 182 + 183).

The vaulted ceiling introduces three important features to the exhibition galleries:

- Each vault corresponds exactly to one module (3m). Therefore the vault system defines the modular rhythm of the exhibition galleries.
- The vaulted ceiling confirms and emphasizes the longitudinal galleries along the north - south axis.
- The light that penetrates the center of the vaults slides along the arch to the exhibition walls.
The Relaxing Gallery is not used for exhibitions and therefore it has a different lighting system. The light filters through the glass blocks of the roof and is distributed in the room through the false ceiling made of parallel metal stripes. The false ceiling is inspired by the one Ingino Gardella designed for the Pavilion of Contemporary Art in Milan (see image 184).
Image 186 - Detail of the ceiling, scale 1:20

- layer of waterproofing paint
- reinforcement, 10mm
- expanded polystyrene concrete
- glass block, 300mm
- metal stripes false ceiling

Dimensions:
- 0.8m
- 3.3m
- 3.5m
concrete tile, 3mm

concrete mortar, 80mm

precast concrete, 50mm

sheet membrane waterproofing, 0.8mm

insulation, 30mm

technical space, max h. 500mm
The Materials
The material chosen for the construction of the Exhibition Tile is white concrete. The choice fell on this material after defining the nature of the exhibition spaces. The exhibition galleries are dug in the east side of the park. Slicing a piece of park away and digging the Exhibition Tile in its body represents an act of force. This design strategy has to find coherence in its structural creation. The structure used to create the museum extension has to be heavy and massive. It has to be a worthy substitute for the tons of earth removed. It is for this reason that I have decided to define the space of the three galleries through the introduction of four massive concrete walls. The exhibition space will have to reveal its cavernous nature. Therefore the raw material can’t be clad. Combining the decision not to use cladding materials and the exposition function of the space, I have decided to use white concrete for the construction. (Belgium is deeply specialized in the production of white concrete).

Defined the material to be used, I still have to determine how to use it. The design of the Exhibition Tile consists of three main elements.
- The longitudinal walls that separate one gallery from the other
- The cross walls that separate one room from the other
- The butterfly beams that form the vaulted ceiling.

The longitudinal walls are the main elements of the project. They will be large and continuous, obtained by a single concrete casting.

To underline the dominance of the longitudinal walls, the cross walls will be thin and show the relief of the necessary pilasters to sustain the roof. The cross walls will be created through several concrete pours, so that the stratification will be clearly visible in the finished work. Finally, the butterfly beams will be prefabricated and assembled only after the construction of the walls. The combination of the different precast pieces will result in a stratification, very similar to that of the cross walls.
Image 188 - Impression of an exhibition room
Section C - C'

image 189 - Section C-C'. Photo of the detail model.

image 190 - Section C-C'. Photo of the study model.

image 191 - Section C-C'. The sketch shows the different view points.
The Connection Rooms
In the previous chapters I have described the Exhibition Rooms and the Relaxing Rooms. The section C-C’ introduces a new room typology: the Connection Room.
It is within these rooms that the change in height, discussed in the previous chapter, takes place. These rooms are characterized by two main elements. The first is the presence of the toilets and the second is the presence of a new “peeking moment”. The Connection Room doesn’t house any exhibition and therefore it doesn’t need any control of the light. Hence big windows have been opened in the ceiling, that allow the view of the Connection Rooms from the level of the park (see images 192 + 193).

image 192 - Plan of the new galleries. The connection rooms are highlighted in red.

image 193 - Views from and over the Connection Room
The exhibition route is characterized by an alternation between exhibition rooms and rooms which give the visitor the chance to metabolize and digest what he just saw. We have already analyzed some of these rooms. For example the Relaxing Rooms offer a relaxing break from the exhibition route, while the Connection Rooms offer the visitor the chance of a reflective break. The last typology of room offering a distressing moment is the Sculpture Room. The exhibition of sculptures offers a pleasant alternative to the painting exposition (see image plan 196).
The Sculpture Rooms are characterized by intense zenithal light that highlights the plasticity of the sculptures (see image 194). Another key feature of these rooms is the exceptional interruption of the longitudinal walls. In correspondence of the Sculpture Rooms the three galleries (Main Gallery, Secondary Gallery and Relaxing Gallery) meet each other in a unique space. If this rooms provide a visual connection of the three galleries, the physical distance is maintained by the presence of railings (see image 197).
The exhibition wall

The second Cross Building connects the level of the park to the level of the Water Path. This connection takes place through a system of ramps (see image 195). The passage leading to the ramps is characterized by an exhibition wall. This wall consists of a series of doors. Behind each door there is a box embedded in the wall, containing the works to be exhibited. Each box hides a different content, which is described through a text, located on the inner side of the door (see image 198).

![Image 198 - Location of the Exhibition Wall](image)

Some of the doors are too high to be reached from the ground level. For this reason a ladder has been added to the wall. The ladder is built on a track and slides along the entire wall (see image 199).

![Image 199 - The Exhibition Wall and its boxes. In red the sliding ladder.](image)
This exhibition wall refers to the wall of the civic orphanage in Amsterdam (see images 200 + 201).
The Chinese symbol for crisis is comprised of two characters: one indicating “danger,” the other, “opportunity.”

The first part of my project describes the situation of deep crisis regarding the contemporary museum. This situation depends by the fact that the museum has not found yet its role in contemporary society. This state of crisis offers today an opportunity of inquiry and reflection. Therefore at the base of my project there is a question:

What are the reasons that caused the current crisis of the contemporary museum?

Through my project I undertook a journey that began with the conceptual definition of the contemporary museum and ended with the presentation of a practical example of how this conceptualization could be expressed within a project. This is perhaps the most important aspect of my work, showing that for once the theory could leave the pages of the books, to be tested in its practical feasibility. For example through my project for the extension of MAMAC, I have shown how the theoretical importance given to the context has been expressed practically in an intimate relation between the architecture and the topography of the area.

The issues related to the contemporary museum have not been solved through my project. It has never been my intention to focus on the presumptuous goal of finding an ultimate cure for all the issues regarding the contemporary museum. My commitment has been dedicated to the formulation of a strategy (studied, developed and tested), which could represent a starting point for further discussions and constructive criticisms. Through my work I want to stimulate further investigations, in order to find the right role of the museum in our society.
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